

Opportunity Title: CDC Multiplex Bead Assay Fellowship - MV Team

Opportunity Reference Code: CDC-NCIRD-2022-0183

Organization Centers for Disease Control and Prevention (CDC)

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A complete application consists of:

- An application
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- One educational or professional recommendation. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

All documents must be in English or include an official English translation.

Application Deadline 6/22/2022 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

CDC Office and Location: A fellowship opportunity is currently available in the Viral Vaccine Preventable Diseases Branch (VVPDB), Division of Viral Diseases (DVD) of the National Center for Immunization and Respiratory Diseases (NCIRD) at the Centers for Disease Control and Prevention (CDC) located in Atlanta, Georgia.

The Centers for Disease Control and Prevention (CDC) is one of the major operation components of the Department of Health and Human Services. CDC works to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same.

Research Project: DVD is responsible for surveillance for many viruses associated with vaccine preventable and non-vaccine preventable viral diseases. VVPDB is a Global Specialized Laboratory within the WHO Measles and Rubella Laboratory Network. Understanding the prevalence of measles and rubella antibodies in a population can help verify vaccination coverage rates and identify populations that may be at risk of measles or rubella virus transmission and outbreaks. VVPDB has developed a multiplex bead assay (MBA) to evaluate population seroprevalence. This assay is already in use for a large-scale serosurvey with more studies pending. At the same time, assay development continues, with the goal of integrating the assay with other MBAs.




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To help accomplish these goals, the selected fellow will assist the molecular virology team within VVPDB.

Learning Objectives: Under the guidance of a mentor, learning opportunities may include:

- Evaluating antigens for bead coupling to integrate testing for immunity against additional pathogens
- Developing a method to measure the antigen content of commercially available antigen preparations
- Testing large panels of sera by MBA to generate data for serosurveys
- Performing quality control of bead lots and data analysis of quality control data including quality data informing the precision and accuracy of the MBA across all antigens
- Modifying assay conditions to harmonize with MBA protocols used by other CDC programs

The results of this fellowship will provide VVPDB with an expanded MBA antigen panel that will be used to generate serosurveillance data for measles, mumps, rubella, varicella, diphtheria and tetanus. The selected fellow will collaborate with subject matter experts and team members who have established the MBA in VVPDB. The fellow may provide technical and experimental support for transferring the assay to other countries.

Mentor(s): The mentor for this opportunity is Melissa Coughlin (htq4@cdc.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: June 1, 2022. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for one year, but may be renewed up to 4 additional years upon recommendation of CDC and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between

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DOE and CDC. Participants do not become employees of CDC, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.












The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process please email ORISE.CDC.NCIRD@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a master's or doctoral degree in one of the required fields (e.g. Virology, Microbiology, Immunology, Molecular Biology, Genetics), or be currently pursuing one of the degrees with completion by the start date of the appointment. Degree must have been received within five years of the appointment start date.

Experience in serology methods is preferred.

**Eligibility
Requirements**

- **Degree:** Master's Degree or Doctoral Degree.
- **Academic Level(s):** Graduate Students, Postdoctoral, or Post-Master's.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** (12 )
 - **Communications and Graphics Design** (2 )
 - **Computer, Information, and Data Sciences** (17 )
 - **Earth and Geosciences** (21 )
 - **Engineering** (27 )
 - **Environmental and Marine Sciences** (14 )
 - **Life Health and Medical Sciences** (48 )
 - **Mathematics and Statistics** (11 )
 - **Physics** (16 )
 - **Science & Engineering-related** (2 )
 - **Social and Behavioral Sciences** (28 )